

# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 123570

**TO:** David Lukton  
**Location:** rem/3b75/3c70  
**Art Unit:** 1653  
**June 4, 2004**

**Case Serial Number:** 09/926385

**From:** P. Sheppard  
**Location:** Remsen Building  
**Phone:** (571) 272-2529  
  
**sheppard@uspto.gov**

Search Notes

SEARCH REQUEST FORM  
(STIC)

ME/

Requestor's Name: David Lukton    Examiner number: 71263    Date:

6-2-04

Art Unit: 1653    Phone number: 571-272-0952    Serial Number:

09-926385

Mail Box: 3-C-70    Examiner Rm: 3-B-75    Results format: paper

\*\*\*\*\*

Title of Invention: CYCLIC HEXAPEPTIDES HAVING ANTIBIOTIC ACTIVITYApplicants: TOJO, TAKASHI; OHKI, HIDENORI; SHIRAISHI, NOBUYUKI; MATSUYA, TAKAHIRO; MATSUDA, HIROSHI; MURANO, KENJI; BARRETT, DAVID; OGINO, TAKASHI; MATSUDA, KEIJI; ICHIHARA, MASAHARU; HASHIMOTO, NORIO; KANDA, ATSUSHI; OHIGASHI, ATSUSHIEarliest Priority Date: 4/27/99

\* \* \*

Applicants are claiming compounds on the attached sheet

R1 = hydrogen or -CO-R7

wherein R7 is anything

R2 = anything

R3 = anything

R4 = hydrogen or hydroxy

R5 = hydrogen or hydroxy or sulfate

R6 = hydrogen or acyl or aroyl

\*\*\*\*\*  
STAFF USE ONLY

Type of Search

Vendors and cost where applicable

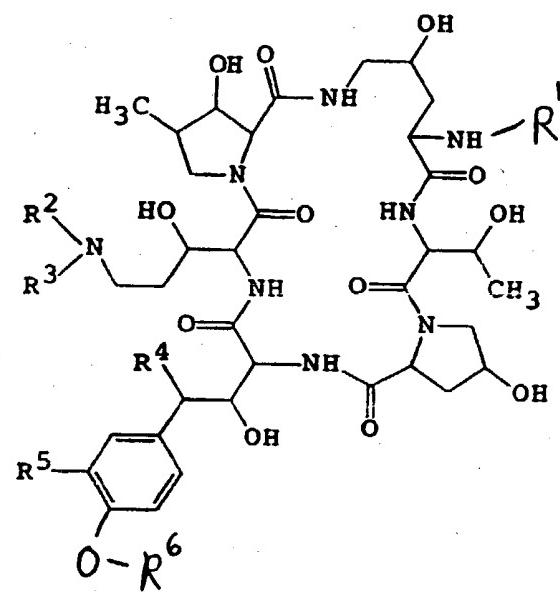
Searcher:

NA Sequence (#)

STN

Searcher ID: \_\_\_\_\_

09/926385



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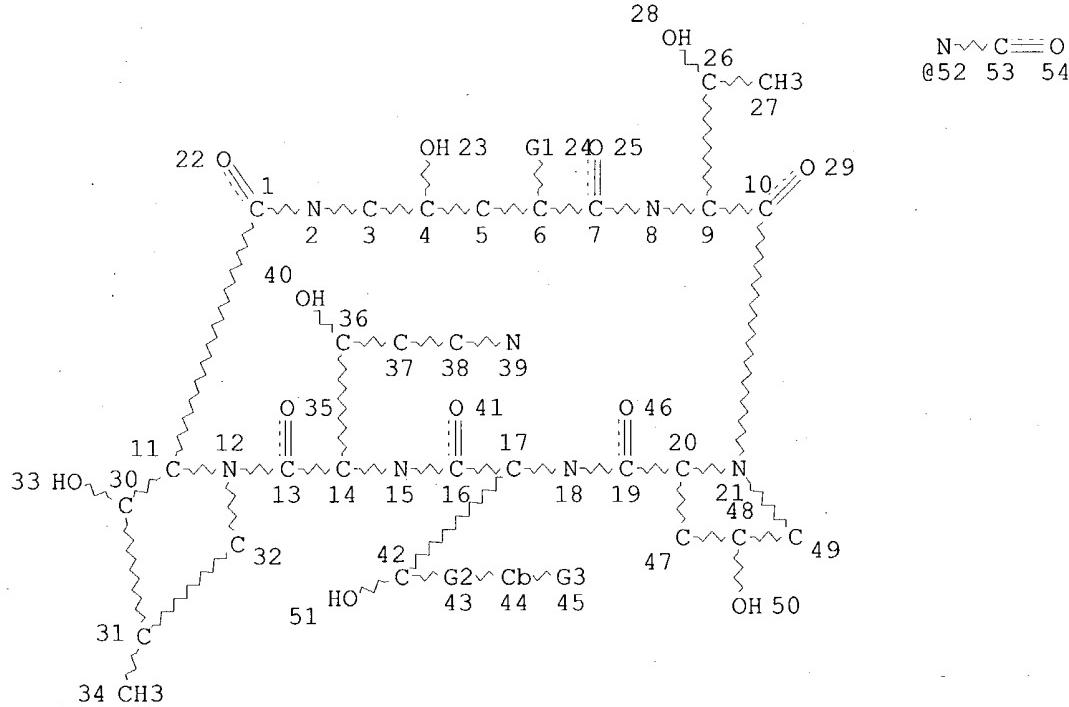
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FILE COVERS 1907 - 4 Jun 2004 VOL 140 ISS 24  
FILE LAST UPDATED: 3 Jun 2004 (20040603/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=>

=> d stat que 18  
L1 STR



Page 1-A

CH~OH  
@55 56

O~C  
@57 58

O~Cy  
@59 60

Page 2-A

VAR G1=NH2/52

VAR G2=CH2/55

VAR G3=OH/57/59

NODE ATTRIBUTES:

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MLEVEL IS CLASS AT 30 31 32 47 48 49

DEFAULT ELEVEL IS LIMITED

ECOUNT IS UNLIMITED AT 30 31 32 47 48 49

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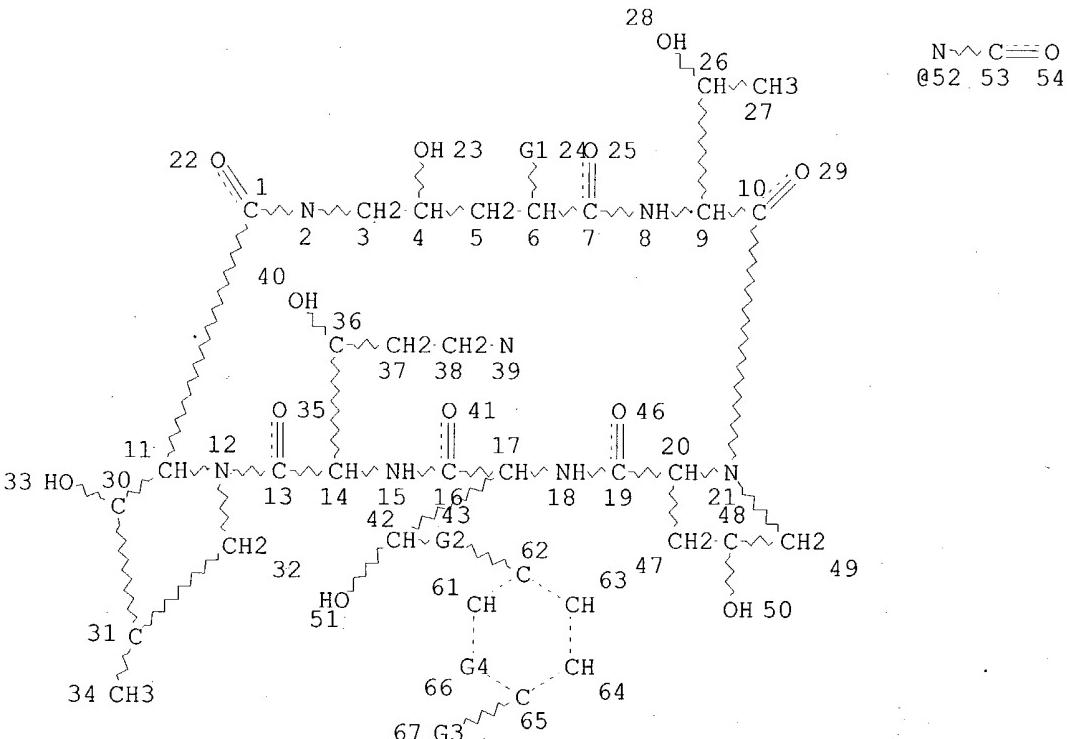
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 60

STEREO ATTRIBUTES: NONE

L3 1370 SEA FILE=REGISTRY SSS FUL L1

L5 STR



Page 1-A

CH~OH  
@55 56O~~C  
@57 58O~~Cy  
@59 60C~G5  
@68 69

Page 2-A

VAR G1=NH2/52

VAR G2=CH2/55

VAR G3=OH/57/59

VAR G4=CH/68

VAR G5=OH/S

## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 30 31 48  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS UNLIMITED AT 30 31 48

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RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 67

## STEREO ATTRIBUTES: NONE

L7 20 SEA FILE=REGISTRY SUB=L3 SSS FUL L5  
 L8 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

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L8 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:656795 HCAPLUS

DOCUMENT NUMBER: 139:197770

TITLE: Preparation of lipopeptides having antimicrobial activity

INVENTOR(S): Mizuno, Hiroaki; Matsuda, Hiroshi; Toda, Ayako;  
 Matsuya, Takahiro; Barrett, David; Matsuda, Keiji

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 270 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068807	A2	20030821	WO 2003-JP1107	20030204
WO 2003068807	A3	20040415		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: AU 2002-441 A 20020211

OTHER SOURCE(S): MARPAT 139:197770

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to new lipopeptides I [R1 = H, acyl; R2 = carbamoyl, (protected) aminoalkyl or guanidinoalkyl, hydroxy-substituted alkylaminoalkyl; R3 = H, OH; R4 = aminoalkyl, alkylcarbamoylalkyl, carboxyalkyl, etc.; R5 = OH or protected hydroxy] or their salts which

have antimicrobial activities (esp. antifungal activity) and inhibitory activity on .beta.-1,3-glucan synthase and to a process for their synthesis. Pharmaceutical compns. contg. I are used for prophylactic and/or therapeutic treatment of infectious diseases in a human being or an animal. Thus, cyclic peptide II.2HCl [R = p-[4-[(4-methoxybutoxy)methyl]-1-piperidinyl]phenyl] was prep'd. by N-acylation of I (R1 = H) and showed MIC < 0.2 .mu.g/mL against Candida albicans.

IT

**583054-48-2P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of lipopeptides having antimicrobial activity)

L8 ANSWER 2 OF 3 HCPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:618024 HCPLUS

DOCUMENT NUMBER: 135:180954

TITLE: Synthesis of cyclic hexapeptide derivatives for use as antimicrobial or antifungal agents in humans or animals

INVENTOR(S): Toda, Ayako; Matsuya, Takahiro; Mizuno, Hiroaki; Matsuda, Hiroshi; Murano, Kenji; Barrett, David; Ogino, Takashi; Matsuda, Keiji

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 207 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

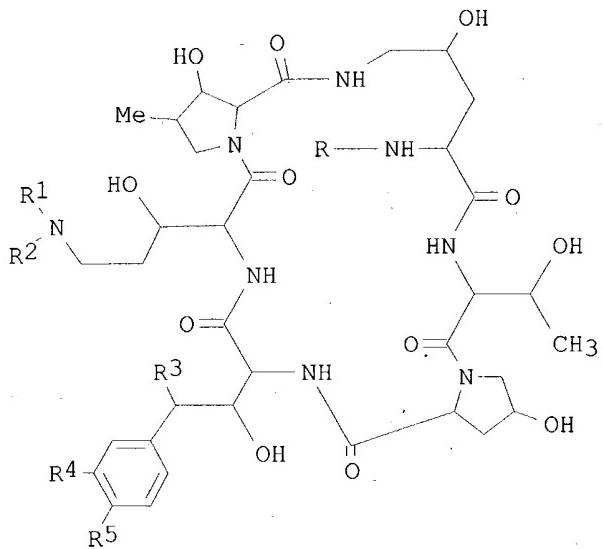
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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WO 2001060846	A1	20010823	WO 2001-JP1204	20010220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001034095	A5	20010827	AU 2001-34095	20010220
EP 1259535	A1	20021127	EP 2001-906140	20010220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001008792	A	20021203	BR 2001-8792	20010220
JP 2003523349	T2	20030805	JP 2001-560230	20010220
RU 2224765	C1	20040227	RU 2002-125463	20010220
NZ 520808	A	20040326	NZ 2001-520808	20010220
US 2003083238	A1	20030501	US 2002-30161	20020130
NO 2002003697	A	20021014	NO 2002-3697	20020806
PRIORITY APPLN. INFO.:				
AU 2000-5752 A 20000221				
AU 2000-9552 A 20000821				
AU 2000-2344 A 20001228				
WO 2001-JP1204 W 20010220				

OTHER SOURCE(S): MARPAT 135:180954

GI



AB Cyclic polypeptides [(I); R, R1 (independently) = H, acyl; R2 = hydroxyalkyl; R3 = H, OH; R4 = H, OH, alkoxy, HO<sub>3</sub>SO<sup>-</sup>; R5 = OH, acyloxy], useful as antimicrobial or antifungal agents, or as .beta.-1,3-glucan synthase inhibitors (no data), for use in prophylactic and/or therapeutic treatment of infectious diseases in humans or animals, were prep'd. A variety of substituted acyl R groups were prep'd. and coupled with the cyclopeptide. Thus, I [R = 4-[2-[4-[4-[5-methoxypentyloxy]piperidin-1-yl]phenyl]imidazo[2,1-b][1,3,4]thiadiazol-6-yl]phenylcarbonyl; R1,R3 = H; R2 = CH(CH<sub>2</sub>OH)<sub>2</sub>; R4 = HO<sub>3</sub>SO; R5 = OH (II)] was prep'd. in four steps from the starting protected cyclic peptide sodium salt and activated ester of substituted benzoic acid (prepn. given). In in vitro tests of antimicrobial activity in mouse serum against Candida albicans FP-633, II had MIC <0.3 .mu.g/mL.

IT 355381-11-2P 355381-12-3P 355381-29-2P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of cyclic hexapeptide derivs. for use as antimicrobial or antifungal agents in humans or animals)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:772658 HCPLUS

DOCUMENT NUMBER: 133:335462

TITLE: Preparation of cyclic hexapeptides having antibiotic activity

INVENTOR(S): Tojo, Takashi; Ohki, Hidenori; Shiraishi, Nobuyuki; Matsuya, Takahiro; Matsuda, Hiroshi; Murano, Kenji; Barrett, David; Ogino, Takashi; Matsuda, Keiji; Ichihara, Masaharu; Hashimoto, Norio; Kanda, Atsushi; Ohigashi, Atsushi

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 449 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000064927	A1	20001102	WO 2000-JP2710	20000425
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1173472	A1	20020123	EP 2000-917469	20000425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003501347	T2	20030114	JP 2000-614276	20000425
PRIORITY APPLN. INFO.:			AU 1999-9997	A 19990427
			WO 2000-JP2710	W 20000425
OTHER SOURCE(S):	MARPAT 133:335462			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Cyclic hexapeptides I [R1 = H, acyl; R2, R3 = H, cyano, (un)substituted alkyl, acyl, heterocyclyl, alkylidanyl; R4 = H, OH; R5 = H, OH, alkoxy, hydroxysulfonyloxy; R6 = OH, acyloxy] or their salts were prepd. for use as antimicrobials, esp. fungicides. Thus, cyclic peptide II [R1 = p-[5-[4'-(2-methoxyethoxy)[1,1'-biphenyl]-4-yl]thiazol-2-yl]benzoyl], prepd. via N-acylation reaction, showed MIC <0.3 .mu.g/mL for inhibition of Candida albicans.

IT 303978-76-9P 303979-29-5P 303979-30-8P  
 303979-31-9P 303979-32-0P 303979-33-1P  
 303979-34-2P 303979-35-3P 303979-37-5P  
 303979-38-6P 303979-39-7P 303979-40-0P  
 303979-41-1P 303979-43-3P 304656-24-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of cyclic hexapeptides having antibiotic activity)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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STRUCTURE FILE UPDATES: 3 JUN 2004 HIGHEST RN 689216-09-9  
 DICTIONARY FILE UPDATES: 3 JUN 2004 HIGHEST RN 689216-09-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

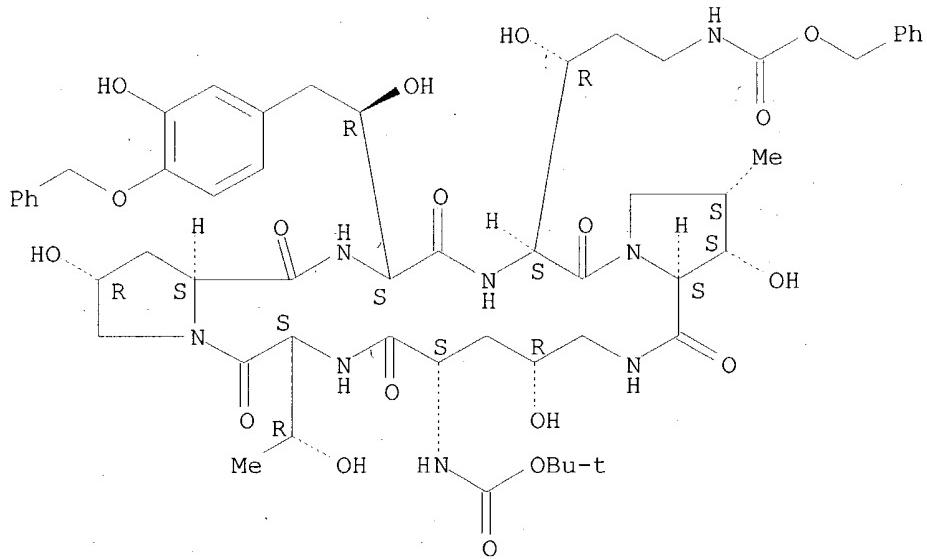
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L7 ANSWER 1 OF 20 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 583054-48-2 REGISTRY  
 CN Echinocandin C, 1-[(4R)-N2-[(1,1-dimethylethoxy)carbonyl]-4-hydroxy-L-ornithine]-4-[4-[3-hydroxy-4-(phenylmethoxy)phenyl]-L-threonine]-5-[(3R)-3-hydroxy-N5-[(phenylmethoxy)carbonyl]-L-ornithine]- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C55 H74 N8 O18  
 SR CA  
 LC STN Files: CA, CAPLUS  
 DT.CA CAplus document type: Patent  
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

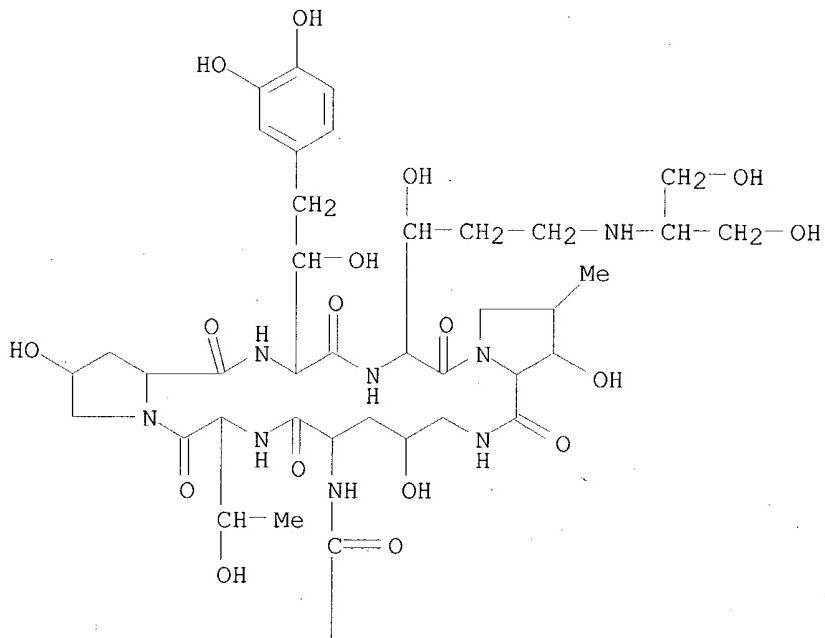
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 RN 355381-29-2 REGISTRY  
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 FS PROTEIN SEQUENCE; STEREOSEARCH  
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 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 DT.CA CAplus document type: Patent

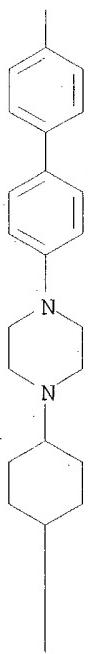
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

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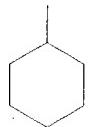
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PAGE 3-A



● 3 HCl

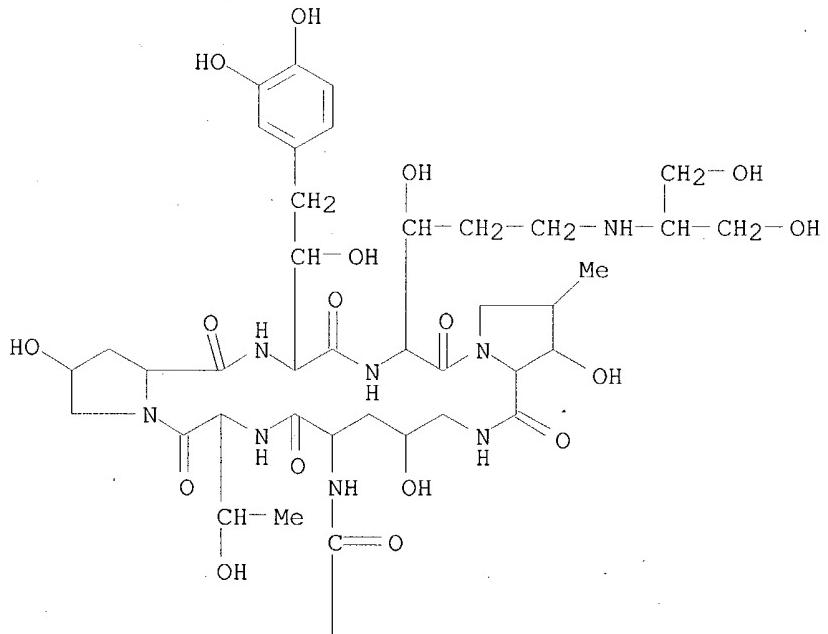
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REFERENCE 1: 135:180954

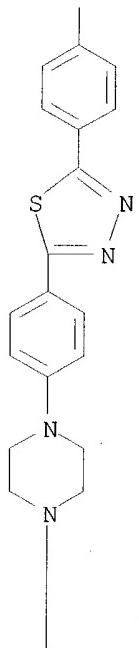
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*(3,4-dihydroxyphenyl)-L-threonine]-5-[*(3R)*-3-hydroxy-N5-[2-hydroxy-1-(hydroxymethyl)ethyl]-L-ornithine]- (9CI) (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C64 H88 N12 O17 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL  
 DT.CA CAplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
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\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

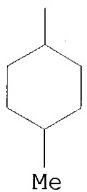
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PAGE 2-A



PAGE 3-A



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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REFERENCE 1: 135:180954

L7 ANSWER 4 OF 20 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 355381-11-2 REGISTRY  
 CN Echinocandin B, 1-[(4R)-4-hydroxy-N2-[4-[5-[4-[(7-methoxyheptyl)oxy]phenyl]-1,3,4-thiadiazol-2-yl]benzoyl]-L-ornithine]-4-[4-(3,4-dihydroxyphenyl)-L-threonine]-5-[(3R)-3-hydroxy-N5-[2-hydroxy-1-(hydroxymethyl)ethyl]-L-ornithine]-, monohydrochloride (9CI) (CA INDEX NAME)  
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 LC STN Files: CA, CAPLUS, USPATFULL

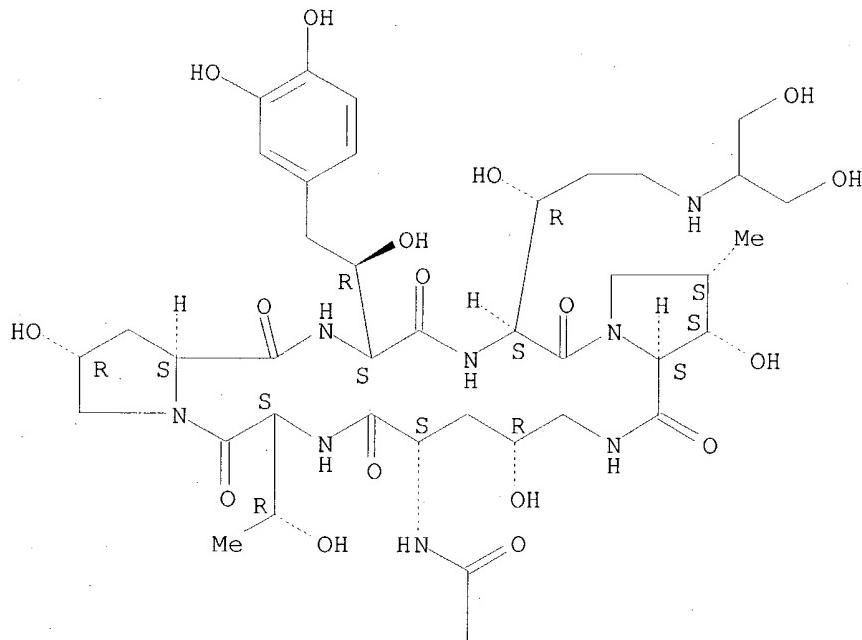
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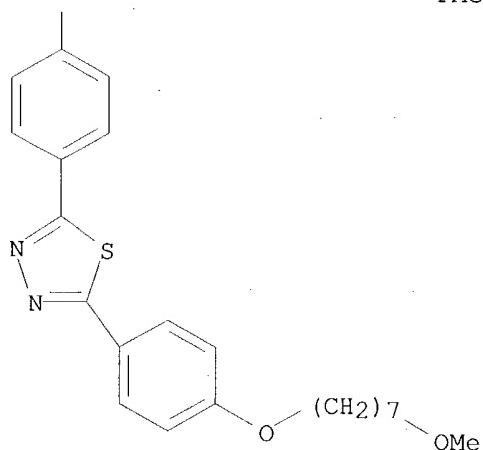
\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



● HCl

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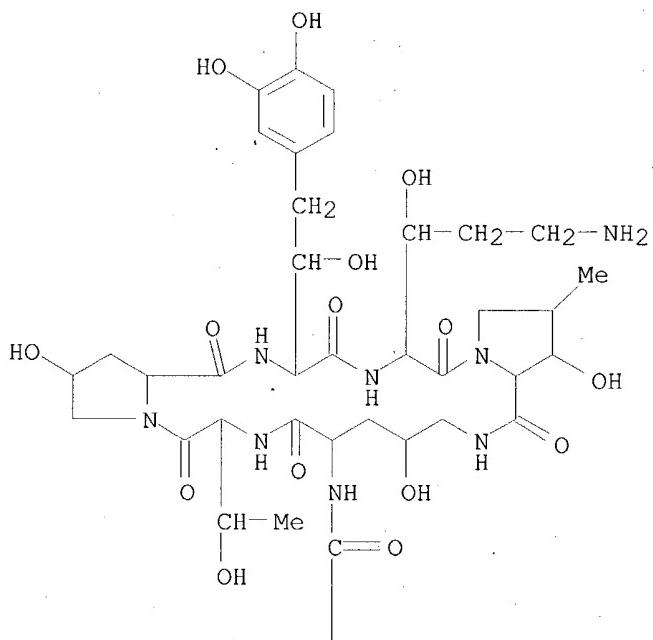
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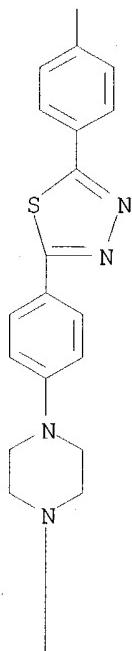
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 RN 304656-24-4 REGISTRY  
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 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C61 H82 N12 O15 S . 3 Cl H  
 SR CA  
 LC STN Files: CA, CAPLUS  
 DT.CA CAplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

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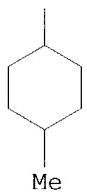
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PAGE 2-A



PAGE 3-A



●3 HCl

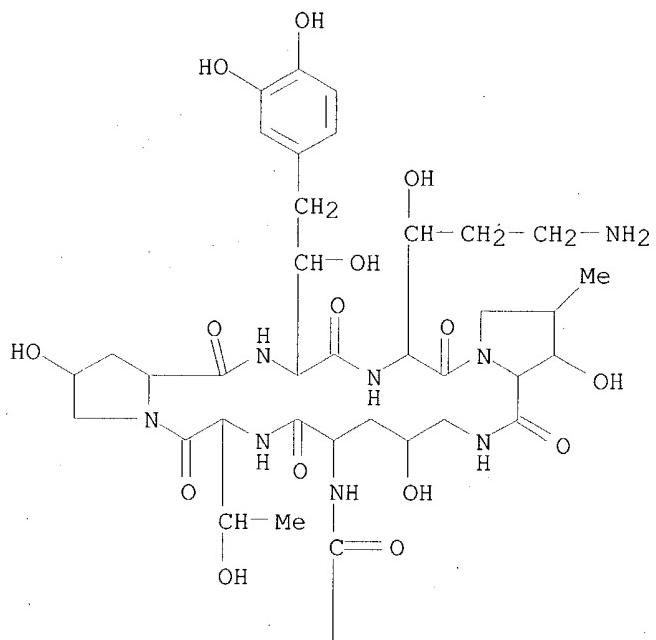
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REFERENCE 1: 133:335462

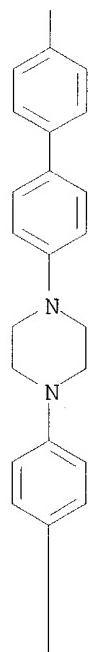
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 RN 303979-43-3 REGISTRY  
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 (CA INDEX NAME)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C64 H85 N11 O16  
 SR CA  
 LC STN Files: CA, CAPLUS  
 DT.CA CAPplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

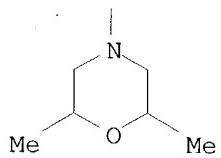
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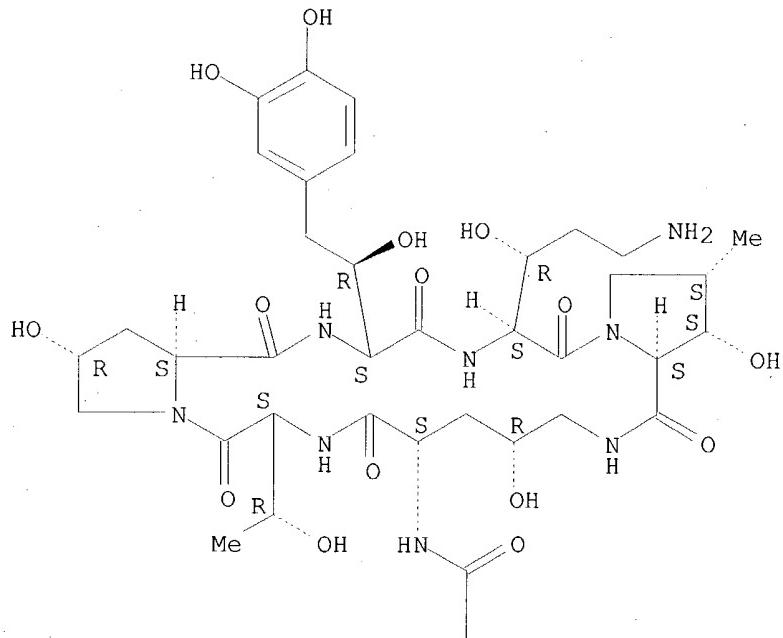
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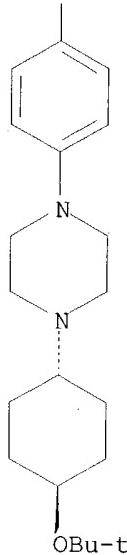
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● 3 HCl

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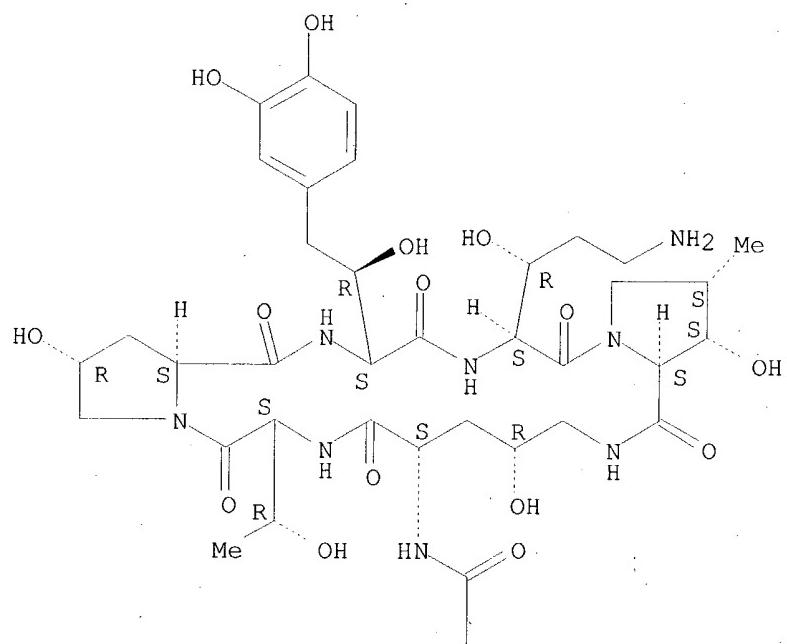
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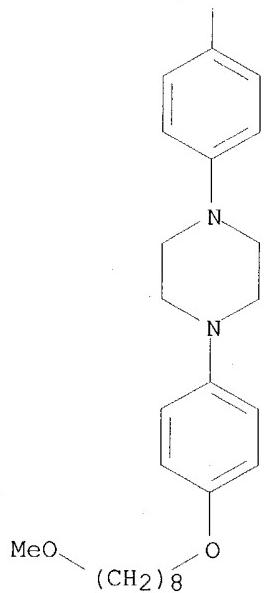
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Absolute stereochemistry.

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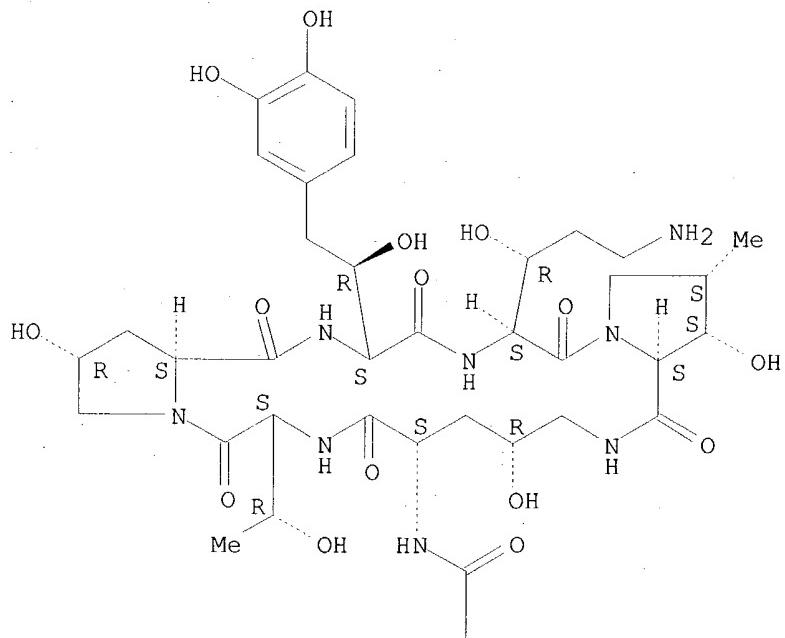
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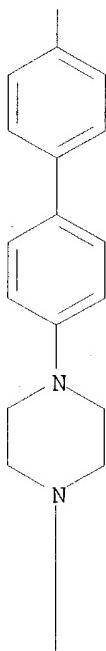
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Absolute stereochemistry.

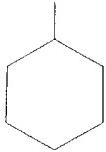
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● 3 HCl

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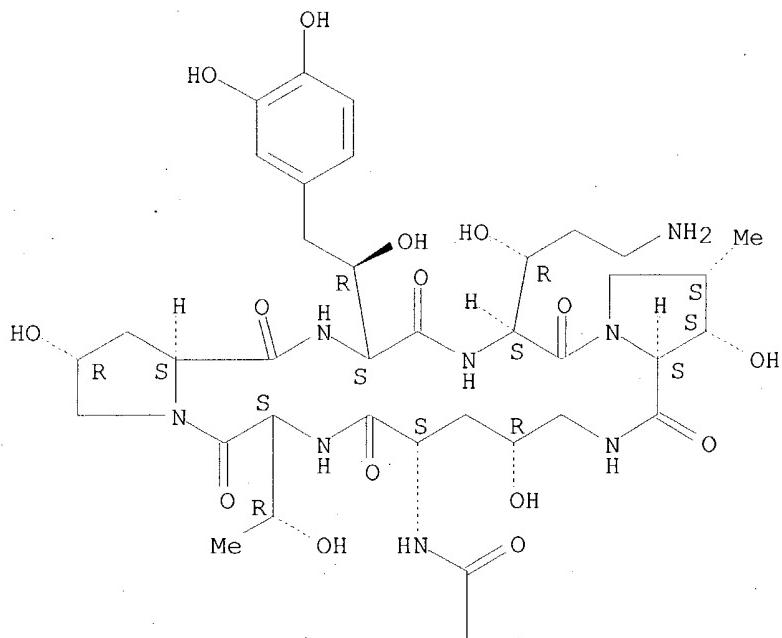
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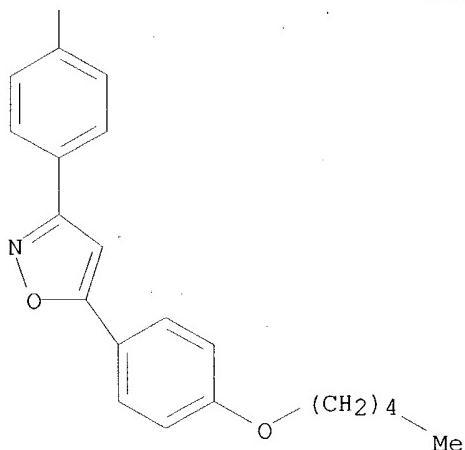
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Absolute stereochemistry.

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REFERENCE 1: 133:335462

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 RN 303979-37-5 REGISTRY

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LC STN Files: CA, CAPLUS

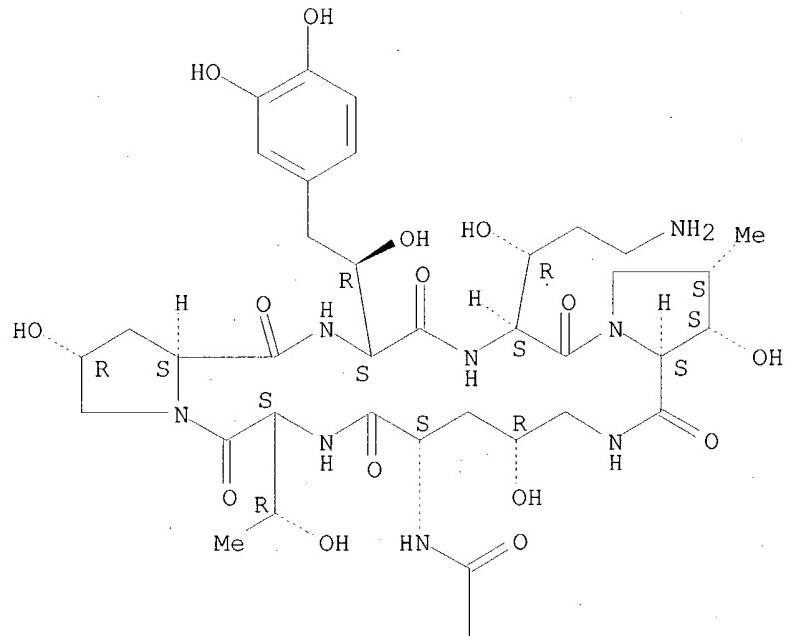
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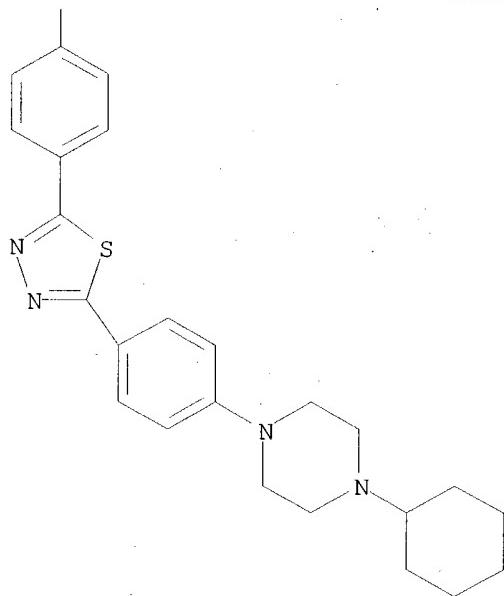
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● 3 HCl

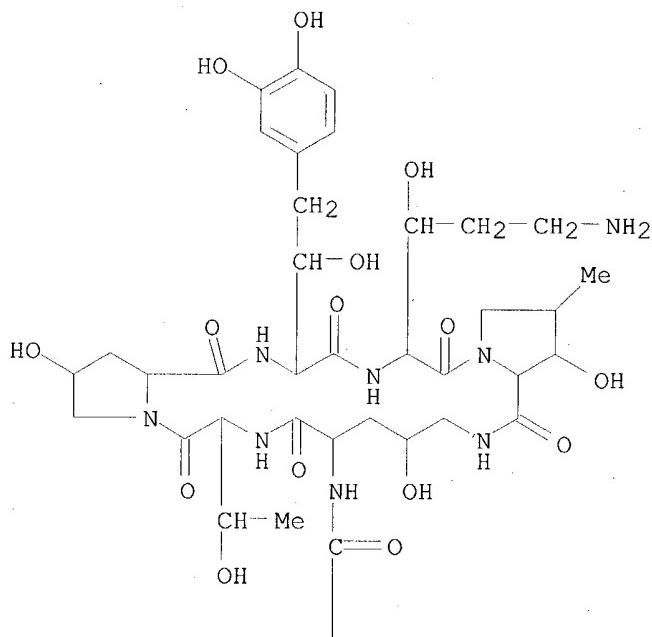
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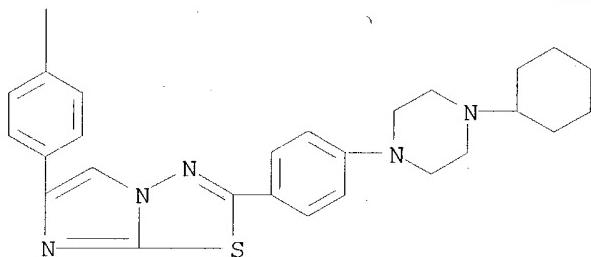
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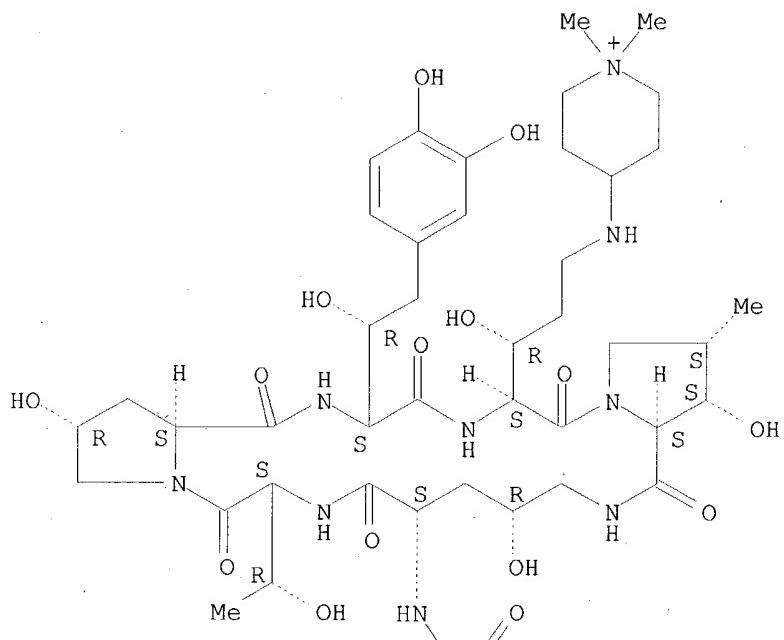
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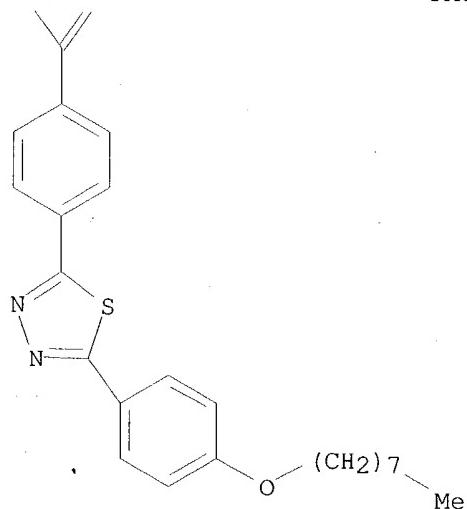
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Absolute stereochemistry.

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● Cl<sup>-</sup>

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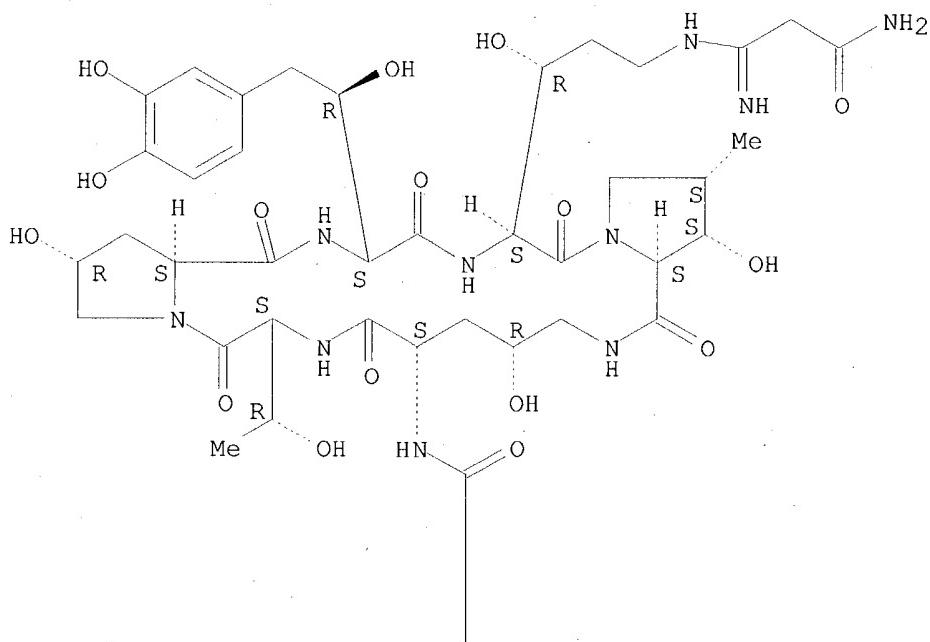
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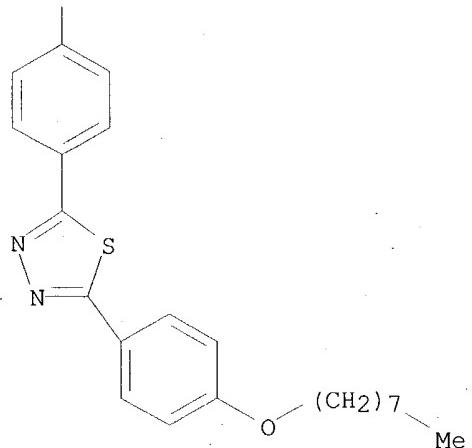
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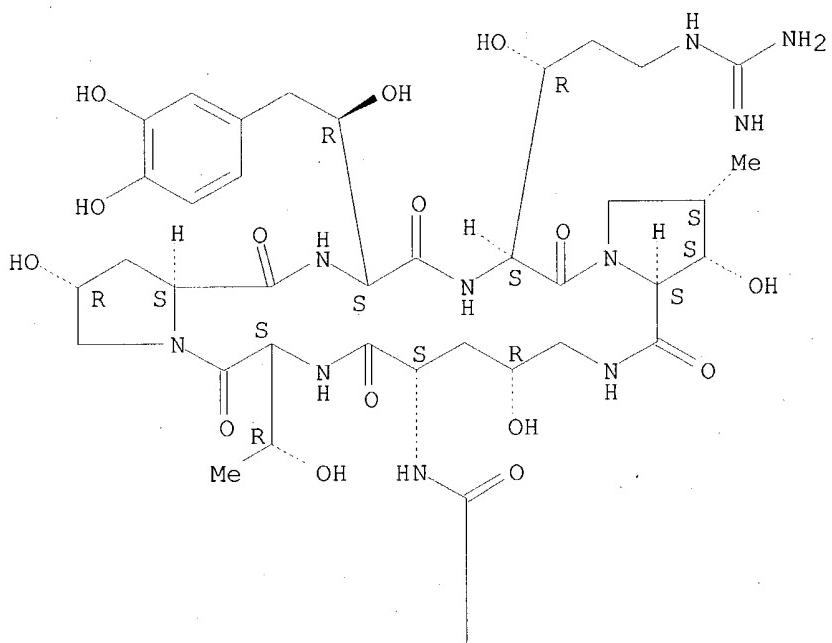
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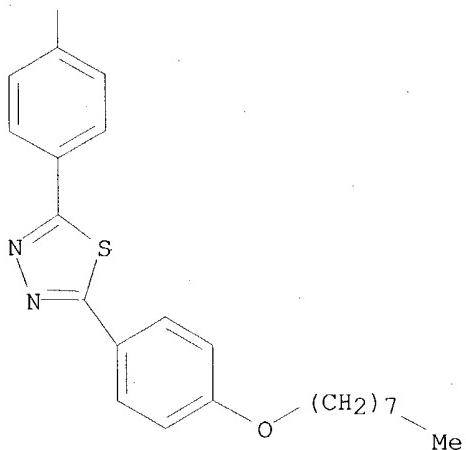
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Absolute stereochemistry.

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SR CA

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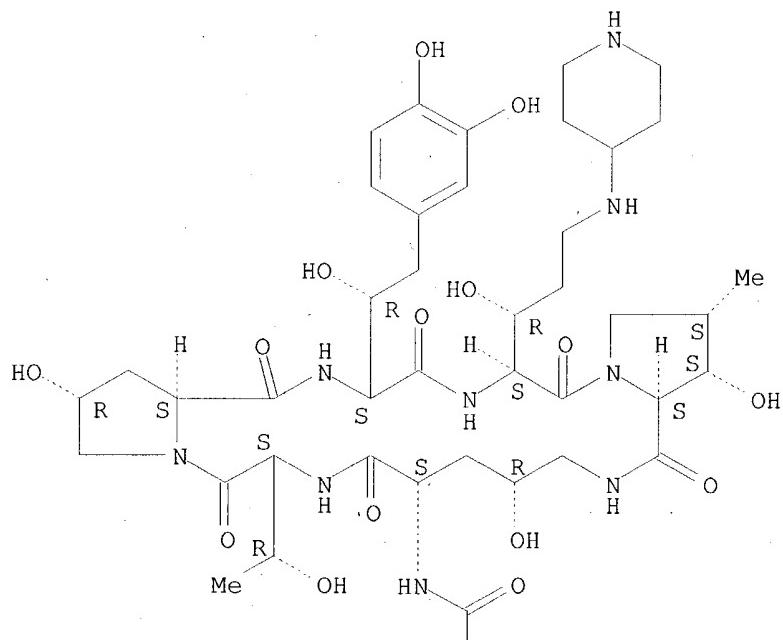
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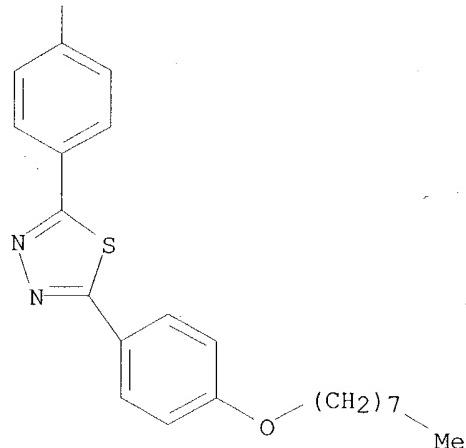
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Absolute stereochemistry.

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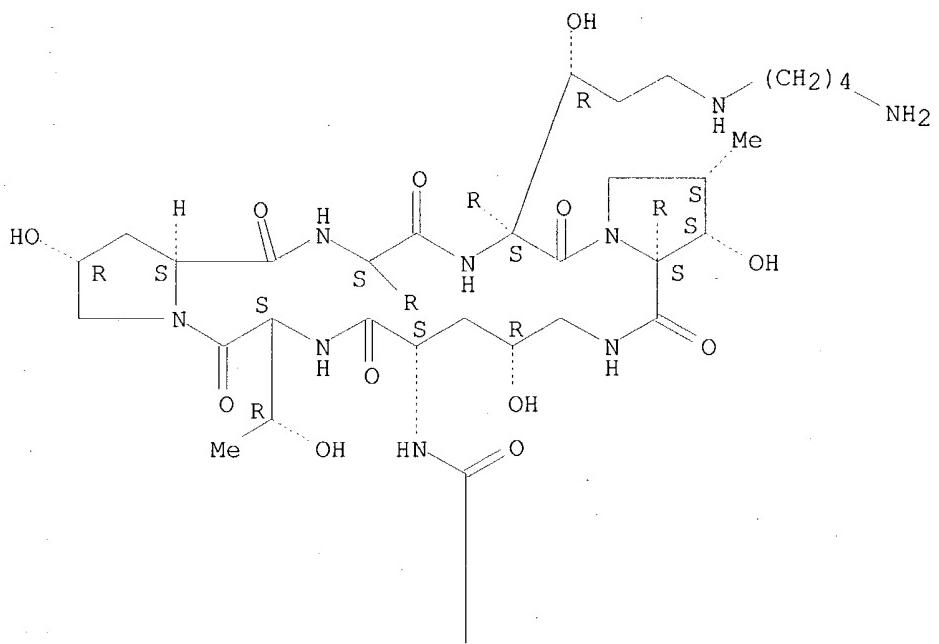
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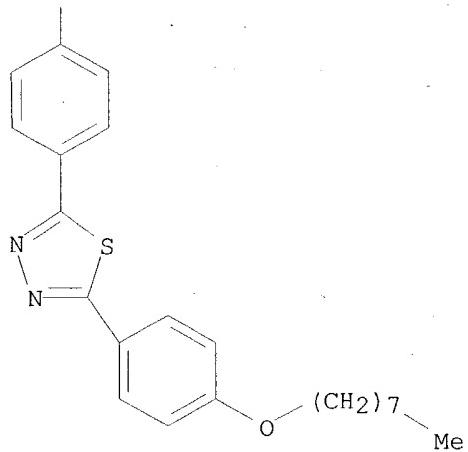
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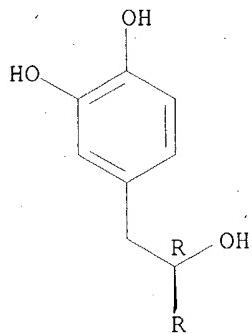
Absolute stereochemistry.

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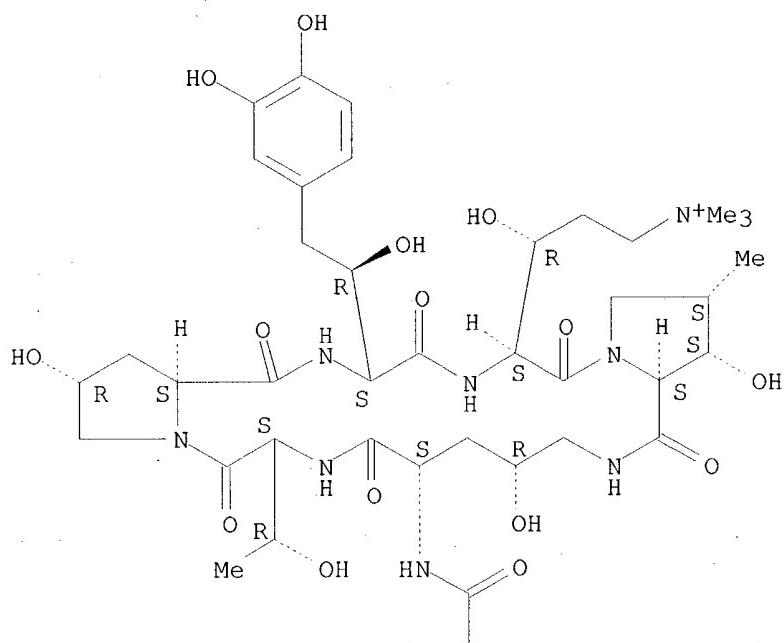
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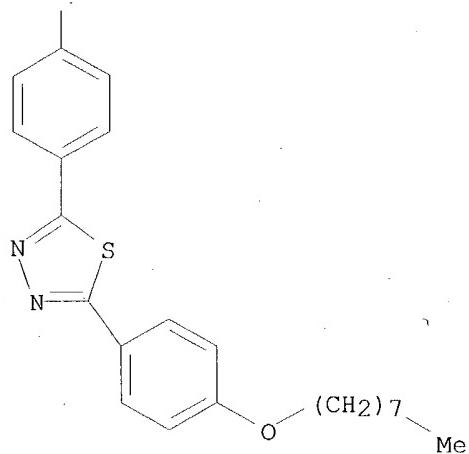
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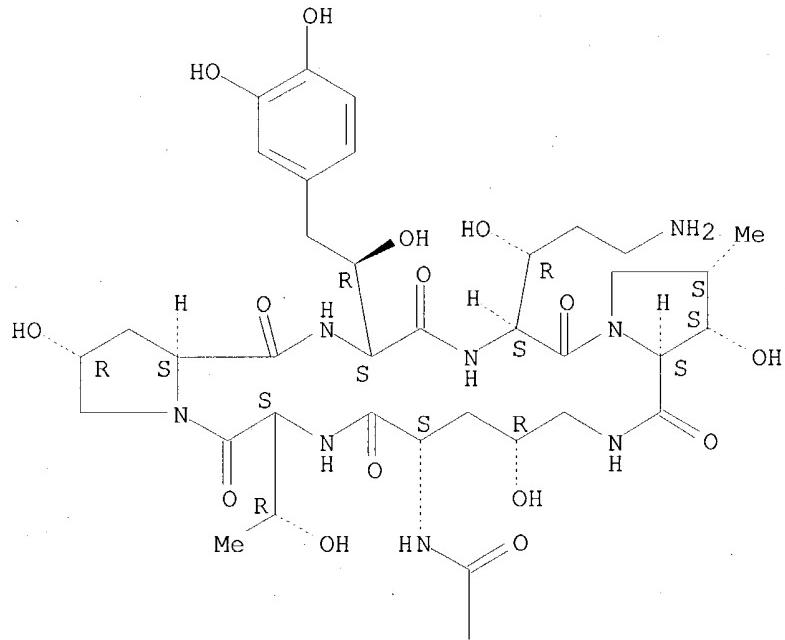
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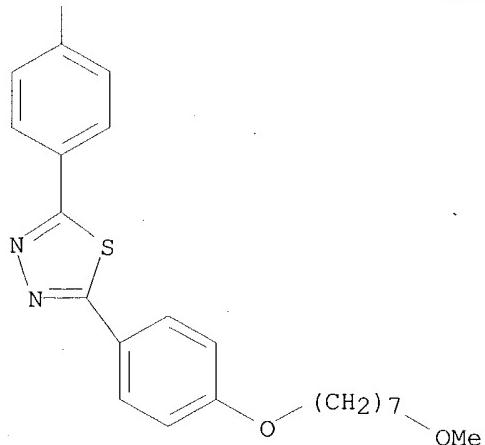
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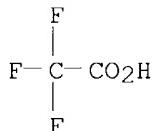
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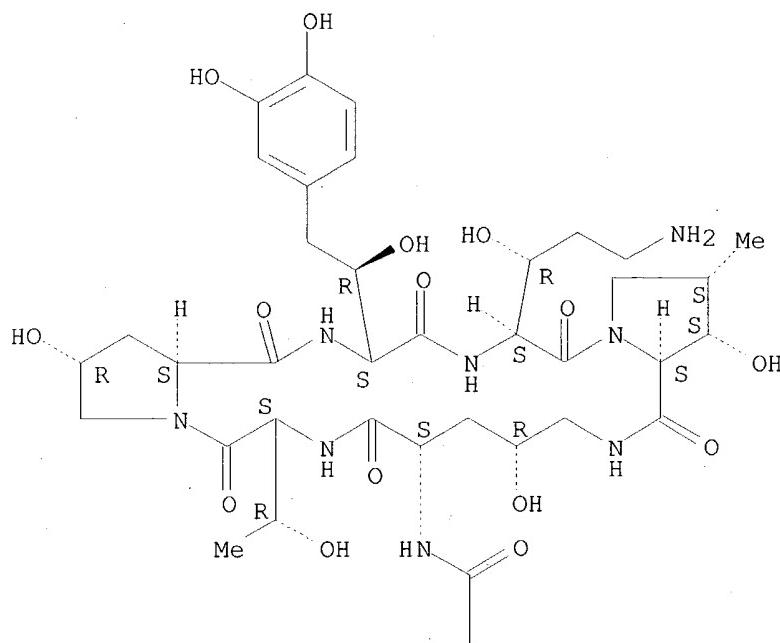
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